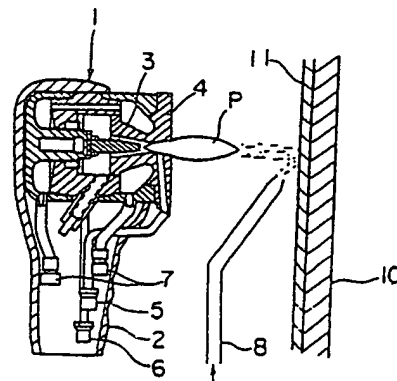


(54) METHOD FOR COLORING SPRAYED DEPOSIT OF CERAMICS

(11) 2-54749 (A) (43) 23.2.1990 (19) JP
 (21) Appl. No. 63-203931 (22) 18.8.1988
 (71) NKK CORP (72) SHIGECHIKA KOSUGE(3)
 (51) Int. Cl.³ C23C4/12, C23C4/10

PURPOSE: To inexpensively form a colored ceramics thermally sprayed layer by means of plasma spraying by spraying a sintered pigment of inorganic oxide on a substrate surface in the vicinity of a plasma thermally sprayed part at the time of forming a ceramics film on the surface of a substrate, such as steel sheet, by means of plasma spraying.

CONSTITUTION: A high voltage is impressed between a cathode 3 made of W and an anode 4 made of Cu of a plasma jet spraying torch 1 to initiate arcing, and a mixed working gas of Ar and H₂ is fed through an inlet 6, which is sprayed in the form of plasma jet P from the anode 4 onto a substrate 10 by means of heating by arc. Simultaneously, a powder of ceramics, such as alumina, is supplied through a feeding hole 5, by which a sprayed deposit 11 of alumina is formed on the substrate 10 by means of high temp. of the plasma jet P. At this time, a powder of sintered pigment of inorganic oxide of various colors is supplied to the position of the plasma jet P spraying part in the vicinity of the surface of the substrate 10, by means of a nozzle 8, and mixed with alumina to carry out coloring, by which the colored ceramics film 11 can be formed inexpensively.

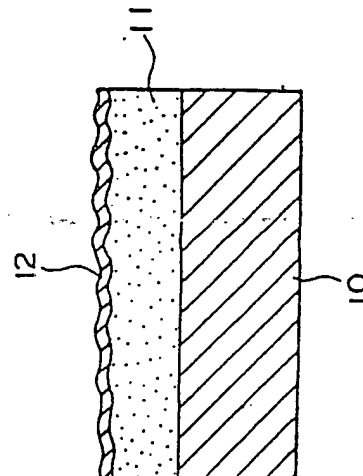


(54) CERAMICS-COATED MOUNTING MATERIAL

(11) 2-54750 (A) (43) 23.2.1990 (19) JP
 (21) Appl. No. 63-203929 (22) 18.8.1988
 (71) NKK CORP (72) SHIGECHIKA KOSUGE(3)
 (51) Int. Cl.³ C23C4/18, C23C28/00

PURPOSE: To obtain a building material, such as panel for external wall material for building, excellent in corrosion resistance, damage resistance, weatherability, and contamination resistance by providing a ceramics thermally sprayed layer and a sealing layer composed of synthetic resin onto the surface of a base material composed of stainless steel or Al.

CONSTITUTION: As a building material, such as panel for external wall material for building, a thermally sprayed layer 11 of ceramics, such as alumina, is formed by means of thermal spraying on the surface of a stainless-steel or Al sheet 10, e.g., of about 2mm thickness excellent in corrosion resistance. Further, spray painting with fluororesin is applied to the above to form a resin sealing layer 12, which is baked at high temp. The resulting material is excellent as a building material, such as panel for external wall material, because the base material 10 itself has superior corrosion resistance against salt damage, etc., and further, the ceramics thermally sprayed layer 11 has superior damage resistance and the resin sealing layer 12 has high weatherability and contamination resistance to rainwater and ultraviolet rays.

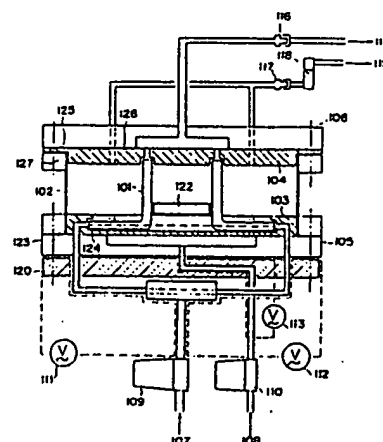


(54) METALLIC OXIDATION TREATMENT APPARATUS

(11) 2-54751 (A) (43) 23.2.1990 (19) JP
 (21) Appl. No. 63-203102 (22) 17.8.1988
 (71) TADAHIRO OMI(1) (72) TADAHIRO OMI(3)
 (51) Int. Cl.³ C23C8/18

PURPOSE: To reduce moisture content in an atmosphere and to form a superior passivating film on the surface of a bent pipe by disposing a gas-introducing hole and an exhaust hole in a manner to be in contact with both ends of a bent pipe to be treated, forcing a treatment gas to flow through the bent pipe, and carrying out oxidation by heating in a dry atmosphere.

CONSTITUTION: An elbow 101 as a metallic pipe to be subjected to oxidation treatment is placed in an oxidizing furnace 102 and inserted into a holder 103. Gas is allowed to flow through gas-introducing pipes 107, 108 to prevent the generation of particles. A holder 104 and a flange 106 are attached to the oxidizing furnace 102, and exhaust lines 114, 115 are connected by means of joints 116, 117, respectively. Purge gas is allowed to flow through the elbow 101 and the oxidizing furnace 102 to substitute the atmosphere by an inert-gas atmosphere and also remove contaminants composed principally of moisture from the oxidizing furnace 102. Then, the gas supplied into the elbow 101 is switched to an atmospheric gas for oxidation treatment and oxidation treatment is



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